



Environmental Epidemiology and Toxicology

Mercury in Fish - Fact Sheet

A reduction in funding will result in fewer sites sampled per year and/or fewer samples per site impacting our ability to accurately characterize the current state of mercury contamination in seafood throughout Louisiana. An increase in funding will allow for additional sampling, increase outreach capacity, increase our understanding of this exposure pathway, and ultimately lead to decreased risk of exposure to residents and vulnerable populations (e.g., women and children).

Objective

List an objective for the listed activity. (Maximum length 300 characters)

Reduce exposure to mercury among Louisiana residents by assessing mercury levels in locally-caught seafood, monitoring mercury levels in the general public and sensitive subgroups, and making recommendations to reduce mercury exposure from seafood consumption.

Performance Indicators

- Number of Waterbodies Assessed
- Number of Blood Mercury Lab Reports Reviewed
- Number of Outreach Activities
- Blood Mercury Levels

Narrative

The mission of the Mercury Fish Tissue Assessment Program (the Activity) is to reduce mercury exposure to residents by issuing fish consumption advisories in areas where fish-tissue mercury levels are high. Fish advisories provide recommendations for a reduction/restriction of seafood consumption to protect the public especially the sensitive population which includes women of childbearing age and young children. One of the largest sources of exposure to mercury in the general population is through seafood consumption. Because fish is an important dietary component for Louisiana residents, mercury toxicity due to the consumption of fish under advisory is a legitimate health concern.

The Fish Tissue Assessment component of the Mercury Program provides valuable data which has increased our knowledge base surrounding human exposure to mercury via fish consumption and resulted in the issuance of fish advisories throughout the state. Since 1992, [48 fish advisories for mercury contamination have been issued](#) in Louisiana, and no mercury advisory has ever been rescinded, to date.

At the end of FY10, the Louisiana Department of Environmental Quality is discontinuing the Mercury Program for which they receive \$500,000 annually in state general funds. The Office of Public Health (OPH) proposes to operate a component of the Mercury Program- the Mercury Fish Tissue Assessment Program beginning in FY11 at a reduced cost of \$413,000. This activity includes:

- Seafood sampling (15-20 samples/site) which would take place at approximately 100 sites per year. OPH will partner with the LA Dept of Wildlife and Fisheries (LDWF) who would be responsible for sampling and outreach. OPH Laboratory Services would conduct the analyses. These efforts will be done in coordination with LDEQ.
- Assessing the fish tissue data and making public health recommendations regarding priority sampling areas to LDWF and the LA Dept of Environmental Quality and advisory areas to the State Health Officer.
- Conducting targeted blood mercury testing for high risk populations and/or geographical areas. OPH Laboratory Services will analyze blood samples for mercury.
- Disseminating advisory information. OPH will partner with LDWF and LDEQ to notify residents of fish consumption advisories.

Better Health

Fish advisory development is traditionally a state-led function. The legislature has provided state support for this activity since 1994; continuation of this activity requires continued state support. The Activity supports the [Better Health](#) State Outcome Goal by mitigating risks due to environmental mercury exposure ([Environment](#)) and encouraging safe eating habits ([Healthy Behavior](#)). Fish consumption advisories are issued in areas with high fish-tissue mercury levels. [Advisories inform the population, in particular licensed fishers and their families, on how to get the positive health benefits from seafood, while minimizing mercury exposure.](#) This Activity serves all LA residents as fish-tissue sampling is conducted statewide. To date, [371 waterbodies have been assessed and 48 fish consumption advisories for mercury have been issued.](#) The Activity particularly targets women and children as this population is sensitive to mercury effects. [Mercury damages the nervous system and is dangerous to the developing fetus.](#)

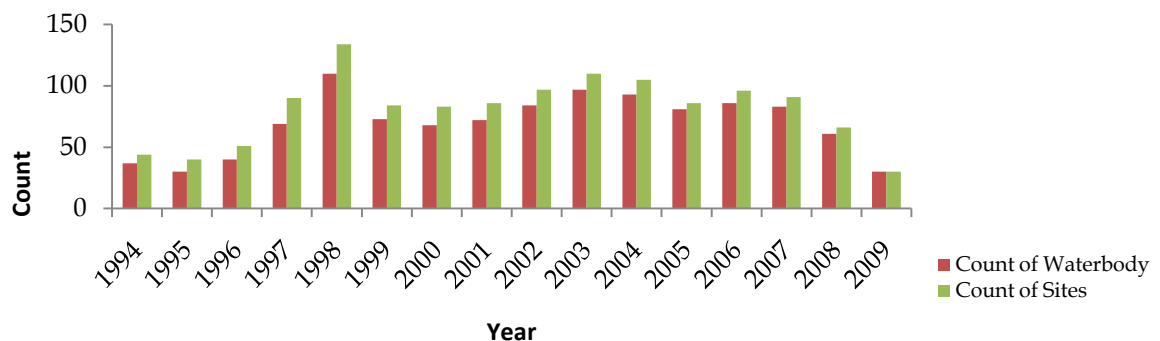
LDHH will partner with the LA Dept of Wildlife and Fisheries (LDWF) who will conduct fish sampling and outreach. LDHH will continue to direct sampling to areas of concern in collaboration with LDEQ. In the past, sample results have triggered remediation where high levels of contaminants were found. LDHH will continue to work with LDEQ to ensure the quality of LA's water resources. LDHH will also continue to work with industry groups and the public to develop advisories to protect the public and ensure the optimal use of state resources. LDHH will continue to work with LDEQ, LDWF, and the LA Audubon Council to produce and distribute

[brochures](#); and with the Legislature, state departments, and environmental organizations to inform the public about advisories, mercury and safe fish consumption habits.

This Activity advances other state goals:

- [Safe and Thriving Children and Families](#): 1) [Stable Homes](#) (Health) by conducting outreach on the adverse developmental effects of mercury, and (Food) by educating residents on the beneficial health effects of nutrients available in seafood; and 2) Thriving Children (Cognitive Skills) by conducting outreach to obstetricians on how to educate pregnant women and mothers on safe fish consumption habits that will impact cognitive and behavioral development.
- [Natural Resources](#): 1) [Healthy Habitat](#) by integrating compliance, behavior and proactive measures to endure clean water; 2) [Beneficiaries](#) and 3) [Sustainability](#) by ensuring the quality of LA's renewable resources for everyone's enjoyment while protecting public health; 4) [Support Structure](#) (Partnership) by working with LDWF, LDEQ and LDAF to restore LA's natural resources.
- [Economic Development](#): 1) [High Quality of Life](#) by upholding LA's reputation to protect public health while promoting natural resources and safe regional seafood consumption.
- As mandated in [LA Revised Statutes \(RS\) 36:258](#), the LA Office of Public Health (OPH) is required to protect the public health and ensure environmental quality. In [RS 40:5](#) OPH is given exclusive control over functions of the state related to environmental quality and public health. Activity goals follow national public health goals set out in the [US Department of Health and Human Services "Healthy People 2010,"](#) and state environmental health goals as outlined in "[Healthy Louisiana 2010](#)". The Activity also supports the [CDC National Center for Environmental Health "Healthy People in Healthy Places" initiative](#) by improving health in recreational areas and environments.
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- [The primary source of environmental exposure to mercury is through fish consumption.](#) This is of concern, as fishing and seafood consumption are important economic and recreational activities in LA- one billion dollars of fishing expenditures was estimated for 2006 ([USFWS, 2008](#)). Significantly higher mercury levels have been found in LA's commercial fishers ([Bellanger et al, 2000](#)), and coastal recreational fishers ([Lincoln, 2006](#)). In [1998, 2% of individuals participating in a blood mercury screening had elevated mercury \(LDHH, 1998\)](#). [In 2003, high mercury levels were found in people consuming large amounts of regional seafood \(LDHH, 2003\)](#).

- The objectives of the Activity are to reduce mercury exposure by assessing levels in regional seafood, monitoring levels in the general public, and making recommendations to reduce exposure.
- Performance Based Indicators: (1) Number of waterbodies assessed; (2) Number of blood mercury lab reports reviewed; and (3) Number of outreach activities.
- Long-term Outcome-Based Indicator: Average blood mercury levels
- The primary performance objectives of this Activity are to 1) evaluate fish mercury levels and 2) evaluate blood mercury lab reports. The Fish Advisory Program has sampled and evaluated at least 50 sites per year since 1997. To meet the goal of evaluating statewide blood mercury levels, a blood mercury surveillance system was initiated after LDHH amended [LA's Sanitary Code's list of reportable diseases and conditions](#) to include mercury poisoning. Since initiation of this surveillance system, approximately 2000 blood lab mercury reports have been received. Exposure surveys and educational outreach conducted for cases of concern identified with this surveillance system revealed that 5% of those tested had levels above background; 2% met CDC's clinical case definition; and 22% of clinical cases involved people who ate fish on a regular basis from waterbodies under advisory ([LMR, 2008](#)). The increase in indicators #1 and #2 will reflect the expansion of LA's surveillance efforts.



- The third performance objective is to conduct outreach to educate residents on safe fish consumption habits. The increase in indicator #3 will reflect the expansion of LA's outreach efforts. The ultimate outcome objective of this Activity is to reduce statewide blood mercury levels in people consuming seafood. A decrease in indicator #4 may reflect success of outreach efforts. For the purpose of measuring this indicator baseline values will be obtained.